

ABSTRACT

5 The present invention provides an apparatus and system for high speed
end-to-end telecommunication traffic using an Asynchronous Transfer Mode
(ATM) architecture for convergence of video, data and voice in an SOHO
application using a DSL router. An ATM processor (120) enables traffic shaping,
and operation and maintenance processing within a single module. The ATM
10 processor (120) further includes a processor (114) which executes firmware from
a program memory (110). A register block (116) is provided for communicating
setup and teardown notification, and OAM configuration to the processor (114)
and a connection state RAM (12) provides for communicating connection
configuration in which this information is used by the processor (114) when
15 performing the functions of switching, QoS, and OAM. Transmit scheduler
hardware (118) is provided for the scheduling of ATM cell transmission and is
configured by the processor (114).